

REMARKS

Claims 1-25 are pending in the application.

Claims 1-25 have been rejected.

Claims 27-30 have been added. Support for the newly-added claims can be found in at least paragraph [0051] of the present Specification.

Claims 1 and 16 have been amended.

Rejection of Claims under 35 U.S.C. §101

Claims 16-20 stand rejected under 35 U.S.C. §101 because the claimed invention is purportedly directed to non-statutory subject matter. After careful consideration of the remarks made in the Final Office Action, Applicants respectfully assert that Claims 16-20 are patentable over 35 U.S.C. §101, in view of the arguments herein. Specifically, page 2 of the present Final Office Action states that “the claimed system is software per se, as they are not tangibly embodied on any sort of physical medium or hardware.” Further, the present Final Office Action asserts that the “determining module,” “enabling module,” “restarting module,” and “communications module” are described as being software in the specification.

Applicants respectfully disagree with the assertions made on page 2 of the present Final Office Action. Paragraph [0043] of the present Specification states that “U.S. Patent Application Serial Number 10/609,363 (attorney docket number VRT0010US), entitled ‘Business Continuation Policy for Server Consolidation Environment,’ filed May 31, 2002 and naming as inventors Darshan B. Joshi, Kaushal R. Dalal, and James A. Senicka . . . is being incorporated by reference herein in its entirety for all purposes.” U.S. Patent Application Serial Number 10/609,363 is hereinafter referred to as “Joshi.” Figure 17, reference numerals 47 and 48 of Joshi discloses a modem 47 and a network interface 48, both of which clearly qualify as a tangible embodiment on physical medium or hardware within the meaning of 35 U.S.C. §101. Thus, the “communications hardware” as recited in now-amended Claim 16 is clearly supported by the present Specification as a tangible embodiment on physical medium or hardware within the meaning of 35 U.S.C. §101. Claims 16-20 are therefore patentable over 35 U.S.C. §101. Applicants respectfully request that the rejection be withdrawn.

Objections to the Specification

Page 2 of the present Final Office Action asserts that the present Specification is objected to as allegedly failing to provide proper antecedent basis for the claimed subject matter. Specifically, the Final Office Action asserts that “a communication module” is not disclosed in the specification to support the claimed communication module. Applicants have amended Claim 16 to recite “communication hardware.” As previously discussed, the present Specification incorporates the Joshi application by reference “in its entirety for all purposes.” Figure 17, reference numerals 47 and 48 of Joshi discloses a modem 47 and a network interface 48, which clearly offers support for the claimed “communication hardware.” Thus, Applicant respectfully request that the objection to the specification be withdrawn.

Rejection of Claims under 35 U.S.C. §103(a)

Claims 1, 2, 11, 12, 16, 17, 21 and 22 stand rejected under 35 U.S.C. § 103(a), as being unpatentable over Huang, U.S. Patent No. 6,212,562 (“Huang”), in view of Chao et al., U.S. Patent No. 6,393,485 (“Chao”). While not conceding that the cited references qualify as prior art, but instead to expedite prosecution, Applicants have chosen to respectfully disagree and traverse the rejection as follows. Applicants reserve the right, for example, in a continuing application, to establish that the cited references, or other references cited now or hereafter, do not qualify as prior art as to an invention embodiment previously, currently, or subsequently claimed.

Applicants respectfully assert that nothing in the cited passages of the combination of Huang and Chao discloses (or renders obvious) “if the resource in the first cluster cannot be allocated to provide the quantity of the resource to the application, determining whether the first cluster can be reconfigured to provide the quantity of the resource to the application,” as recited in independent Claims 1, 11, 16, and 21. Page 4 of the present Final Office Action asserts that col. 2, lines 52-65 of Huang discloses the recited element of the independent claims. This passage of Huang states:

b2) if the arriving session and the executing sessions having criticality levels higher than the criticality level of the arriving session do not exceed the resource capacity constraint of the resource, but the arriving session and all executing sessions exceed the resource capacity of the resource, preempting, as necessary, the executing sessions which have criticality levels that are lower than the criticality level of the arriving session; b3)

denying admission of the arriving session if the arriving session and all of the executing sessions having criticality levels higher than the criticality level of the arriving session exceed the resource capacity constraint of the resource; and c) expanding the QoS of sessions remaining following steps b1), b2), and b3).

The decision of whether to admit an arriving session (as disclosed by Huang) merely acts as a gatekeeper to ensure that the total resource requirement of all executing sessions does not exceed the resource capacity constraint of the resource, but does not actually determine whether to “reconfigure” anything, let alone a cluster (in fact, the term “cluster” does not appear within the searchable text of Huang). By marked contrast, the independent claims recite a determination of whether “the first cluster can be reconfigured to provide the quantity of resources to the application.” Thus, the cited passages of Huang and Chao (which is correctly not relied upon by the present Final Office Action as disclosing the recited feature of the independent claims), taken alone or in any permissible combination, do not disclose (or render obvious) each and every element of independent Claims 1, 11, 16, and 21. Independent Claims 1, 11, 16, and 21 and all dependent claims are therefore patentable over any permissible combination of Huang and Chao. Applicants respectfully request that the rejection be withdrawn.

Moreover, a person with skill in the art would not expect Huang and Chao, taken separately or in any permissible combination, to disclose (or render obvious) the recited elements of the independent claims because a combination of Huang and Chao is improper. With regard to the instant case, the present Final Office Action correctly asserts on page 4 that Huang “does not specifically disclose if the first cluster cannot be reconfigured, restarting the application in a second cluster having a sufficient amount of the resource to provide the quantity of the resource to the application,” as recited in the independent claim, but cites col. 3, lines 23-27; col. 5 lines 40-45; col. 7, lines 34-43 of Chao as allegedly disclosing the recited element.

Col. 3, lines 23-27 of Chao states:

When a resource fails, Cluster server will either restart it on the local node or move the resource group to the other node, depending on the resource restart policy and the resource group failover policy and cluster status.

Col. 5, lines 40-45 of Chao states:

Applications, whether they are enhanced for an individual cluster or not, can readily take advantage of multi-cluster system clustering features. Instead of mutual failover between one pair of nodes, the multi-cluster allows an application failover between any two nodes in a large cluster.

Finally, col. 7, lines 34-43 of Chao states:

The decisions of bringing resources and resource groups to their on-line and off-line state is made by the multi-cluster server. If a sub cluster (or the node that runs the sub cluster) fails, multi-cluster services will restart those resources and resource groups that were running on that node on some other sub clusters. When the failed node and the corresponding MSCS sub cluster is restarted and re-joins the multi-cluster, there will be resources conflicts if the new node and new sub cluster try to bring those resources and resource groups to an on-line state.

As clearly indicated in the cited passages of Chao, the relocation of resources among the clusters and restart of resources are both performed in the context of failover. That is, these actions are performed in the event of the failure of a resource. On the other hand, the cited passages of Huang disclose a determination of whether to admit an arriving session, based on the resource capacity restraint on a particular resource, which has nothing to do with the failure of resources (as disclosed in Chao). In fact, the combination of Huang and Chao as posited by the present Final Office Action would merely teach a system that would selectively admit sessions as disclosed in Huang and handle failures as disclosed in Chao. Nothing in either reference discloses, teaches, or suggests using Chao's failure handling techniques in the context of Huang's session handling. Further, the references, alone or in combination do not teach "if the first cluster cannot be reconfigured, restarting the application in a second cluster having a sufficient amount of the resource to provide the quantity of the resource to the application" (as recited in the independent claims). That is, the references, alone or in combination do not teach restarting the application in a second cluster if the first cluster cannot be reconfigured. Instead, the references merely teach restarting a resource in a failure context.

Since a person with skill in the art would not expect such a combination of disparate references (admitting sessions and failover of resources), any combination of Huang and Chao is improper. Thus, Applicants respectfully submit that independent Claims 1, 11, 16, and 21 and all dependent claims are therefore patentable over the combination of Huang and Chao. Applicants respectfully request that the rejection be withdrawn.

Claims 3, 9, 10, 13, 18 and 23 stand rejected under 35 U.S.C. § 103(a), as being unpatentable over Huang, in view of Chao, as applied to claims 1, 11, 16 and 21 above, and further in view of Trossman et al., U.S. Patent No. 7,308,687 (“Trossman”). While not conceding that the cited references qualify as prior art, but instead to expedite prosecution, Applicants have chosen to respectfully disagree and traverse the rejection as follows. Applicants reserve the right, for example, in a continuing application, to establish that the cited references, or other references cited now or hereafter, do not qualify as prior art as to an invention embodiment previously, currently, or subsequently claimed. Claims 3, 9, 10, 13, 18, and 23 are dependent on independent Claims 1, 11, 16, and 21. Trossman is not cited as disclosing (or rendering obvious) any elements of independent Claims 1, 11, and 16. Thus, dependent Claims 3, 9, 10, 13, 18, and 23 are therefore patentable over Huang, Chao, and Trossman, taken alone or in any permissible combination by virtue of their dependency on the independent claims. Applicants respectfully request that the rejection be withdrawn.

Claims 4, 14, 19, and 24 stand rejected under 35 U.S.C. § 103(a), as being unpatentable over Huang, in view of Chao, as applied to claims 1, 11, 16 and 21 above, and further in view of Fong et al., U.S. Patent No. 6,366,945 (“Fong”). While not conceding that the cited references qualify as prior art, but instead to expedite prosecution, Applicants have chosen to respectfully disagree and traverse the rejection as follows. Applicants reserve the right, for example, in a continuing application, to establish that the cited references, or other references cited now or hereafter, do not qualify as prior art as to an invention embodiment previously, currently, or subsequently claimed. Fong is not cited as disclosing (or rendering obvious) any elements of independent Claims 1, 11, and 16. Thus, dependent Claims 4, 14, 19, and 24 are therefore patentable over Huang, Chao, and Fong, taken alone or in any permissible

combination by virtue of their dependency on the independent claims. Applicants respectfully request that the rejection be withdrawn.

Claims 5-8, 15, 20 and 25 stand rejected under 35 U.S.C. § 103(a), as being unpatentable over Huang, in view of Chao, as applied to claims 1, 11, 16 and 21 above, and further in view of Short et al., U.S. Patent No. 6,178,529 (“Short”). While not conceding that the cited references qualify as prior art, but instead to expedite prosecution, Applicants have chosen to respectfully disagree and traverse the rejection as follows. Applicants reserve the right, for example, in a continuing application, to establish that the cited references, or other references cited now or hereafter, do not qualify as prior art as to an invention embodiment previously, currently, or subsequently claimed. Short is not cited as disclosing (or rendering obvious) any elements of independent Claims 1, 11, and 16. Thus, dependent Claims 5-8, 15, 20 and 25 are therefore patentable over Huang, Chao, and Short, taken alone or in any permissible combination by virtue of their dependency on the independent claims. Applicants respectfully request that the rejection be withdrawn.

CONCLUSION

In view of the amendments and remarks set forth herein, the application and the claims therein are believed to be in condition for allowance without any further examination and a notice to that effect is solicited. Nonetheless, should any issues remain that might be subject to resolution through a telephone interview, the Examiner is invited to telephone the undersigned at 512-439-5087.

If any extensions of time under 37 C.F.R. § 1.136(a) are required in order for this submission to be considered timely, Applicant hereby petitions for such extensions. Applicant also hereby authorizes that any fees due for such extensions or any other fee associated with this submission, as specified in 37 C.F.R. § 1.16 or § 1.17, be charged to deposit account 502306.

Respectfully submitted,

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